

REMARKS

The Office action of July 2, 2003 has been received and its contents carefully noted.

Claims 1-24 are pending in the application. Claims 1, 5, and 19 have been amended. Claims 20-24 have been added without the addition of new matter. Claims 12-18 have been amended in accordance with 35 USC § 112. In accordance with Action, Claim 5 has been rewritten in independent form including all the features of any intervening claims and therefore Claims 5-11 should be deemed allowable.

Claims 1-4, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Obana et al. ("Obana") (U.S. Patent No. 5,136,587) in view of Johannes et al. ("Johannes") (U.S. Patent No. 4,914,655) and Yu (U.S. Patent No. 5,343,240). Applicants respectfully traverse these rejections, and request allowance thereof in the continuation prosecution application for the following reasons.

The Claims are Patentable Over the Cited References

**Claims 1-4, and 19 are not made obvious by Obana, Johannes, and Yu**

Claims 1-4, and 19 stand rejected under § 103(a) in view of Obana, Johannes, and Yu. Applicants strongly contend that Obana, Johannes, and Yu, either alone or in combination, fail to disclose the features recited in these claims as amended such as a plurality

of receiving side tributary circuits installed as many as the number of tributary signals multiplexed onto multiplex signal for supplying the downstream transmission paths with the tributary signals output from said demultiplexer, at least one of said plurality of receiving side tributary circuits detecting its frame information and making a decision of its identification code in response to the frame information detected, and a distribution circuit installed between said demultiplexer and said receiving side tributary circuits for carry out switching of output destinations of the tributary signals supplied from said demultiplexer, the switching being implemented for the each unit of the tributary signals in the multiplex signal in response to a decision result of said at least one of said plurality of receiving side tributary circuits.

Obama, the primary reference asserted, clearly does not disclose this patentably distinct feature of a plurality of tributary circuits receiving the tributary signals output from the demultiplexer, and at least one of said plurality of receiving side tributary circuits detecting its frame information and making a decision of its identification code in response to the frame information detected, and a distribution circuit installed between said demultiplexer and said receiving side tributary circuits for carry out switching of output destinations of the tributary signals supplied from said multiplexer. In direct contrast to the claimed

invention, Obama solely discloses a multiplexer/demultiplexer system for STS-1/STS-3 signals which actually performs signal identification prior to demultiplexing. (see FIG. 9; col. 9, lines 57-63; col. 10, lines 3-9). Particularly, Obama discloses that "...an OC-3 signal...is converted into the STS-3 signal...the detector 73 detects the frame synchronization patterns A1 and A2 amounting to 1 channel within the frame multiplexed synchronizing pattern at the head of the STS-3 signal...the STS-3 signal...is converted into 8-bit parallel signals in the serial-parallel converter 75 in synchronism with the frame synchronizing pattern detection signal from the detector 73, and respectively supplied to the first through third demultiplexing circuits 51 through 53." (see FIG. 9; col. 9, lines 57-63; col. 10, lines 3-9).

Therefore, in contrast to the recited feature of receiving tributary signals output from the demultiplexer to detect frame information and deciding identification code, Obama in strong contrast actually detects the signal code before demultiplexing. Furthermore, there is completely no mention in Obama of a distribution circuit located between the tributary circuits and the demultiplexer as recited. As disclosed throughout Obama, this reference clearly performs demultiplexing after signal detection/identification in contrast to the recited feature of receiving tributary signals at the tributary circuits output from the demultiplexer, and detecting its frame information and making a

decision of its identification code in response to the frame information detected, and a distribution circuit installed between said demultiplexer and said receiving side tributary circuits for carry out switching of output destinations of the tributary signals supplied from said demultiplexer.

Therefore, it is clear that Obama does not disclose the recited feature making the claimed invention patentably distinct and non-obvious from the cited reference.

Similarly, Yu does not disclose the recited feature of receiving tributary signals output from the demultiplexer, and at least one of said plurality of receiving side tributary circuits detecting its frame information and making a decision of its identification code in response to the frame information detected, and a distribution circuit installed between said demultiplexer and said receiving side tributary circuits for carry out switching of output destinations of the tributary signals supplied from said identification codes being associated with the upstream signal paths. Throughout the disclosure, Yu solely describes a cable distribution network and makes no mention of assigning frame information and different identification codes to tributary signals where the frame information indicating a unit of the tributary signals in the multiplex signal, and the different identification codes being associated with the upstream signal paths. Therefore, Yu does not disclose the recited feature making the claimed

invention patentably distinct and non-obvious from the cited reference.

Regarding Johannes, as implicitly indicated in the Action, this reference does not include the recited feature of a distribution circuit installed between a demultiplexer and receiving side tributary circuits. Throughout the disclosure, Johannes solely describes a multiplexer/demultiplexer arrangement and makes no mention of a distribution circuit and therefore does not disclose the recited feature making the claimed invention patentably distinct and non-obvious from the cited reference.

Furthermore, Obama does not disclose the recited feature of the amended claims such as a plurality of transmission side tributary circuits installed as many as the number of the upstream signal paths for assigning to individual tributary signals frame information and different identification codes without including section overhead information for the multiplex signal, and a distribution circuit installed between a demultiplexer and receiving side tributary circuits.

Obama, the primary reference asserted, clearly does not disclose this patentably distinct feature of assigning to individual tributary signals frame information and different identification codes without including section overhead information for the multiplex signal. In strong contrast to the claimed invention, Obama solely discloses a multiplexer/demultiplexer

system for STS-1 signals which include section overhead information (SOH) (see FIG. 1; col. 1, lines 40-51; col. 6, lines 54-58). Particularly, Obama discloses that "...a frame format of the STS-1 signal shown in FIG. 1 is formed for every channel...SOH (section overhead), LOH (line overhead), and POH (path overhead) are control data added to the information which is to be transmitted...the multiplexed signals (corresponding to STS-1 signals) which are output from the first through third multiplexing circuits are supplied to parallel-serial converter." (see FIG. 1; col. 1, lines 40-51; col. 6, lines 54-58).

Therefore, clearly Obama exclusively uses STS-1 signals for multiplexing/demultiplexing that include section overhead information in contrast to the recited feature. Therefore, it is clear that Obama does not disclose the recited feature making the claimed invention patentably distinct and non-obvious from the cited reference.

Similarly, Yu does not disclose the recited feature of a plurality of transmission side tributary circuits installed as many as the number of the upstream signal paths for assigning to individual tributary signals frame information and different identification codes without including section overhead information, the frame information indicating a unit of the tributary signals in the multiplex signal, and the different identification codes being associated with the upstream signal

paths. Throughout the disclosure, Yu solely describes a cable distribution network and makes no mention of assigning frame information and different identification codes to tributary signals where the frame information indicating a unit of the tributary signals in the multiplex signal, and the different identification codes being associated with the upstream signal paths. Therefore, Yu does not disclose the recited feature making the claimed invention patentably distinct and non-obvious from the cited reference.

Regarding Johannes, as implicitly indicated in the Action, this reference does not include the recited feature of a distribution circuit installed between a demultiplexer and receiving side tributary circuits. Throughout the disclosure, Johannes solely describes a multiplexer/demultiplexer arrangement and makes no mention of a distribution circuit and therefore does not disclose the recited feature making the claimed invention patentably distinct and non-obvious from the cited reference.

#### Conclusion

In view of the amendments and remarks submitted above, it is respectfully submitted that all of the remaining claims are allowable and a Notice of Allowance is earnestly solicited.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any

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overpayments to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

The Examiner is invited to contact the undersigned at (703) 205-8000 to discuss the application.

Respectfully submitted,

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